

PAGE: 1

Mr. Spector

**RAW SEQUENCE LISTING
PATENT APPLICATION US/08/712,302**

1812

#9
JMS
8/11/2008

DATE: 02/03/98

TIME: 20:36:40

INPUT SET: S23147.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

SEQUENCE LISTING

(1) General Information:

5 (i) APPLICANT: Grotendorst, Gary R.
6 Bradham Jr., Douglas M.,

8 (ii) TITLE OF INVENTION: CONNECTIVE TISSUE GROWTH FACTOR

10 (iii) NUMBER OF SEQUENCES: 2

12 (iv) CORRESPONDENCE ADDRESS:

13 (A) ADDRESSEE: Spensley Horn Jubas & Lubitz
14 (B) STREET: 4225 Executive Square, Suite 1400
15 (C) CITY: La Jolla
16 (D) STATE: CA
17 (E) COUNTRY: US
18 (F) ZIP: 92037

20 (v) COMPUTER READABLE FORM:

21 (A) MEDIUM TYPE: Floppy disk
22 (B) COMPUTER: IBM PC compatible
23 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
24 (D) SOFTWARE: PatentIn Release #1.0, Version #1.25

26 (vi) CURRENT APPLICATION DATA:

27 (A) APPLICATION NUMBER: 08/712,302
28 (B) FILING DATE: 11-SEP-1996
29 (C) CLASSIFICATION: 435

31 (vii) PRIOR APPLICATION DATA:

32 (A) APPLICATION NUMBER: US 08/386,680
33 (B) FILING DATE: 10-FEB-1995

35 (A) APPLICATION NUMBER: US/08/167,628
36 (B) FILING DATE:

38 (A) APPLICATION NUMBER: US/07/752,427
39 (B) FILING DATE:

41 (viii) ATTORNEY/AGENT INFORMATION:

42 (A) NAME: Wetherell, Jr. Ph.D., John W.
43 (B) REGISTRATION NUMBER: 31,678
44 (C) REFERENCE/DOCKET NUMBER: PD-1294

46 (ix) TELECOMMUNICATION INFORMATION:

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/712,302DATE: 02/03/98
TIME: 20:36:42

INPUT SET: S23147.raw

47 (A) TELEPHONE: 619-455-5100
48 (B) TELEFAX: 619-455-5110

49

50

51 (2) INFORMATION FOR SEQ ID NO:1:

52

53 (i) SEQUENCE CHARACTERISTICS:
54 (A) LENGTH: 2075 base pairs
55 (B) TYPE: nucleic acid
56 (C) STRANDEDNESS: single
57 (D) TOPOLOGY: linear

58

59 (ii) MOLECULE TYPE: cDNA

60

61

62 (vii) IMMEDIATE SOURCE:
63 (B) CLONE: DB60R32

64

65 (ix) FEATURE:
66 (A) NAME/KEY: CDS
67 (B) LOCATION: 130..1177

68

69

70 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

71

72 CCCGGCCGAC AGCCCCGAGA CGACAGCCCG GCGCGTCCCG GTCCCCACCT CCGACCACCG 60

73

74 CCAGCGCTCC AGGCCCCGCG CTCCCCGCTC GCCGCCACCG CGCCCTCCGC TCCGCCCGCA 120

75

76 GTGCCAACC ATG ACC GCC GCC AGT ATG GGC CCC GTC CGC GTC GCC TTC 168
77 Met Thr Ala Ala Ser Met Gly Pro Val Arg Val Ala Phe
78 1 5 10

79

80 GTG GTC CTC CTC GCC CTC TGC AGC CGG CCG GCC GTC GGC CAG AAC TGC 216
81 Val Val Leu Leu Ala Leu Cys Ser Arg Pro Ala Val Gly Gln Asn Cys
82 15 20 25

83

84 AGC GGG CCG TGC CGG TGC CCG GAC GAG CCG GCG CCG CGC TGC CCG GCG 264
85 Ser Gly Pro Cys Arg Cys Pro Asp Glu Pro Ala Pro Arg Cys Pro Ala
86 30 35 40 45

87

88 GGC GTG AGC CTC GTG CTG GAC GGC TGC GGC TGC TGC CGC GTC TGC GCC 312
89 Gly Val Ser Leu Val Leu Asp Gly Cys Gly Cys Cys Arg Val Cys Ala
90 50 55 60

91

92 AAG CAG CTG GGC GAG CTG TGC ACC GAG CGC GAC CCC TGC GAC CCG CAC 360
93 Lys Gln Leu Gly Glu Leu Cys Thr Glu Arg Asp Pro Cys Asp Pro His
94 65 70 75

95

96 AAG GGC CTC TTC TGT GAC TTC GGC TCC CCG GCC AAC CGC AAG ATC GGC 408
97 Lys Gly Leu Phe Cys Asp Phe Gly Ser Pro Ala Asn Arg Lys Ile Gly
98 80 85 90

99

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/712,302

DATE: 02/03/98
 TIME: 20:36:45

INPUT SET: S23147.raw

100	GTG TGC ACC GCC AAA GAT GGT GCT CCC TGC ATC TTC GGT GGT ACG GTG	456
101	Val Cys Thr Ala Lys Asp Gly Ala Pro Cys Ile Phe Gly Gly Thr Val	
102	95 100 105	
103		
104	TAC CGC AGC GGA GAG TCC TTC CAG AGC AGC TGC AAG TAC CAG TGC ACG	504
105	Tyr Arg Ser Gly Glu Ser Phe Gln Ser Ser Cys Lys Tyr Gln Cys Thr	
106	110 115 120 125	
107		
108	TGC CTG GAC GGG GCG GTG GGC TGC ATG CCC CTG TGC AGC ATG GAC GTT	552
109	Cys Leu Asp Gly Ala Val Gly Cys Met Pro Leu Cys Ser Met Asp Val	
110	130 135 140	
111		
112	CGT CTG CCC AGC CCT GAC TGC CCC TTC CCG AGG AGG GTC AAG CTG CCC	600
113	Arg Leu Pro Ser Pro Asp Cys Pro Phe Pro Arg Arg Val Lys Leu Pro	
114	145 150 155	
115		
116	GGG AAA TGC TGC GAG GAG TGG GTG TGT GAC GAG CCC AAG GAC CAA ACC	648
117	Gly Lys Cys Cys Glu Glu Trp Val Cys Asp Glu Pro Lys Asp Gln Thr	
118	160 165 170	
119		
120	GTG GTT GGG CCT GCC CTC GCG GCT TAC CGA CTG GAA GAC ACG TTT GGC	696
121	Val Val Gly Pro Ala Leu Ala Ala Tyr Arg Leu Glu Asp Thr Phe Gly	
122	175 180 185	
123		
124	CCA GAC CCA ACT ATG ATT AGA GCC AAC TGC CTG GTC CAG ACC ACA GAG	744
125	Pro Asp Pro Thr Met Ile Arg Ala Asn Cys Leu Val Gln Thr Thr Glu	
126	190 195 200 205	
127		
128	TGG AGC GCC TGT TCC AAG ACC TGT GGG ATG GGC ATC TCC ACC CGG GTT	792
129	Trp Ser Ala Cys Ser Lys Thr Cys Gly Met Gly Ile Ser Thr Arg Val	
130	210 215 220	
131		
132	ACC AAT GAC AAC GCC TCC TGC AGG CTA GAG AAG CAG AGC CGC CTG TGC	840
133	Thr Asn Asp Asn Ala Ser Cys Arg Leu Glu Lys Gln Ser Arg Leu Cys	
134	225 230 235	
135		
136	ATG GTC AGG CCT TGC GAA GCT GAC CTG GAA GAG AAC ATT AAG AAG GGC	888
137	Met Val Arg Pro Cys Glu Ala Asp Leu Glu Glu Asn Ile Lys Lys Gly	
138	240 245 250	
139		
140	AAA AAG TGC ATC CGT ACT CCC AAA ATC TCC AAG CCT ATC AAG TTT GAG	936
141	Lys Lys Cys Ile Arg Thr Pro Lys Ile Ser Lys Pro Ile Lys Phe Glu	
142	255 260 265	
143		
144	CTT TCT GGC TGC ACC AGC ATG AAG ACA TAC CGA GCT AAA TTC TGT GGA	984
145	Leu Ser Gly Cys Thr Ser Met Lys Thr Tyr Arg Ala Lys Phe Cys Gly	
146	270 275 280 285	
147		
148	GTA TGT ACC GAC GGC CGA TGC TGC ACC CCC CAC AGA ACC ACC ACC CTG	1032
149	Val Cys Thr Asp Gly Arg Cys Cys Thr Pro His Arg Thr Thr Leu	
150	290 295 300	
151		
152	CCG GTG GAG TTC AAG TGC CCT GAC GGC GAG GTC ATG AAG AAG AAC ATG	1080

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/712,302DATE: 02/03/98
TIME: 20:36:47

INPUT SET: S23147.raw

153 Pro Val Glu Phe Lys Cys Pro Asp Gly Glu Val Met Lys Lys Asn Met
154 305 310 315
155
156 ATG TTC ATC AAG ACC TGT GCC TGC CAT TAC AAC TGT CCC GGA GAC AAT 1128
157 Met Phe Ile Lys Thr Cys Ala Cys His Tyr Asn Cys Pro Gly Asp Asn
158 320 325 330
159
160 GAC ATC TTT GAA TCG CTG TAC TAC AGG AAG ATG TAC GGA GAC ATG GCA T 1177
161 Asp Ile Phe Glu Ser Leu Tyr Tyr Arg Lys Met Tyr Gly Asp Met Ala
162 335 340 345
163
164 GAAGCCAGAG AGTGAGAGAC ATTAACATCAT TAGACTGGAA CTTGAACCTGA TTCACTCTC 1237
165
166 ATTTTCCGT AAAAATGATT TCAGTAGCAC AAGTTATTAA AATCTGTTTT TCTAACTGGG 1297
167
168 GGAAAAGATT CCCACCCAAT TCAAAACATT GTGCCATGTC AAACAAATAG TCTATCTTCC 1357
169
170 CCAGACACTG GTTTGAAGAA TGTTAAGACT TGACAGTGGAA ACTACATTAG TACACAGCAC 1417
171
172 CAGAATGTAT ATTAAGGTGT GGCTTTAGGA GCAGTGGGAG GGTACCGGCC CGGTTAGTAT 1477
173
174 CATCAGATCG ACTCTTATAC GAGTAATATG CCTGCTATTG GAAGTGTAAAT TGAGAAGGAA 1537
175
176 AATTTAGCG TGCTCACTGA CCTGCCTGTA GCCCCAGTGA CAGCTAGGAT GTGCATTCTC 1597
177
178 CAGCCATCAA GAGACTGAGT CAAGTTGTTG CTTAAGTCAG AACAGCAGAC TCAGCTCTGA 1657
179
180 CATTCTGATT CGAATGACAC TGTCAGGAA TCGGAATCCT GTCGATTAGA CTGGACAGCT 1717
181
182 TGTGGCAAGT GAATTGCCT GTAACAAGCC AGATTTTTA AAATTTATAT TGTAAATATT 1777
183
184 GTGTGTGTGT GTGTGTGTGT ATATATATAT ATATATGTAC AGTTATCTAA GTTAATTAA 1837
185
186 AGTTGTTGT GCCTTTTAT TTTGTTTTT AATGCTTGA TATTCATG TTGCTCAA 1897
187
188 TTTCTGAACA CCATAGGTAG AATGTAAAGC TTGTCTGATC GTTCAAAGCA TGAAATGGAT 1957
189
190 ACTTATATGG AAATTCTGCT CAGATAGAAT GACAGTCCGT CAAAACAGAT TGTTGCAA 2017
191
192 GGGGAGGCAT CAGTGTCTTG GCAGGGCTGAT TTCTAGGTAG GAAATGTGGT AGCTCACG 2075
193
194
195 (2) INFORMATION FOR SEQ ID NO:2:
196
197 (i) SEQUENCE CHARACTERISTICS:
198 (A) LENGTH: 349 amino acids
199 (B) TYPE: amino acid
200 (D) TOPOLOGY: linear
201
202 (ii) MOLECULE TYPE: protein
203
204 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
205

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/712,302DATE: 02/03/98
TIME: 20:36:49

INPUT SET: S23147.raw

206 Met Thr Ala Ala Ser Met Gly Pro Val Arg Val Ala Phe Val Val Leu
207 1 5 10 15
208
209 Leu Ala Leu Cys Ser Arg Pro Ala Val Gly Gln Asn Cys Ser Gly Pro
210 20 25 30
211
212 Cys Arg Cys Pro Asp Glu Pro Ala Pro Arg Cys Pro Ala Gly Val Ser
213 35 40 45
214
215 Leu Val Leu Asp Gly Cys Gly Cys Cys Arg Val Cys Ala Lys Gln Leu
216 50 55 60
217
218 Gly Glu Leu Cys Thr Glu Arg Asp Pro Cys Asp Pro His Lys Gly Leu
219 65 70 75 80
220
221 Phe Cys Asp Phe Gly Ser Pro Ala Asn Arg Lys Ile Gly Val Cys Thr
222 85 90 95
223
224 Ala Lys Asp Gly Ala Pro Cys Ile Phe Gly Gly Thr Val Tyr Arg Ser
225 100 105 110
226
227 Gly Glu Ser Phe Gln Ser Ser Cys Lys Tyr Gln Cys Thr Cys Leu Asp
228 115 120 125
229
230 Gly Ala Val Gly Cys Met Pro Leu Cys Ser Met Asp Val Arg Leu Pro
231 130 135 140
232
233 Ser Pro Asp Cys Pro Phe Pro Arg Arg Val Lys Leu Pro Gly Lys Cys
234 145 150 155 160
235
236 Cys Glu Glu Trp Val Cys Asp Glu Pro Lys Asp Gln Thr Val Val Gly
237 165 170 175
238
239 Pro Ala Leu Ala Ala Tyr Arg Leu Glu Asp Thr Phe Gly Pro Asp Pro
240 180 185 190
241
242 Thr Met Ile Arg Ala Asn Cys Leu Val Gln Thr Thr Glu Trp Ser Ala
243 195 200 205
244
245 Cys Ser Lys Thr Cys Gly Met Gly Ile Ser Thr Arg Val Thr Asn Asp
246 210 215 220
247
248 Asn Ala Ser Cys Arg Leu Glu Lys Gln Ser Arg Leu Cys Met Val Arg
249 225 230 235 240
250
251 Pro Cys Glu Ala Asp Leu Glu Glu Asn Ile Lys Lys Gly Lys Lys Cys
252 245 250 255
253
254 Ile Arg Thr Pro Lys Ile Ser Lys Pro Ile Lys Phe Glu Leu Ser Gly
255 260 265 270
256
257 Cys Thr Ser Met Lys Thr Tyr Arg Ala Lys Phe Cys Gly Val Cys Thr
258 275 280 285

PAGE: 1

SEQUENCE VERIFICATION REPORT
PATENT APPLICATION **US/08/712,302**

DATE: 02/03/98
TIME: 20:36:52

INPUT SET: S23147.raw

Line

Error

Original Text